

R E M A R K S

Claims 1, 5, 23, 28, 29, 32, 38, and 42 are amended. Claims 4 and 34 are canceled. Claims 2, 3, 6-22, 24-27, 30, 31, 33, 35-37, 39-41, and 43-46 stand as originally filed. Re-examination and reconsideration are requested.

In the office action, paper number (unspecified), dated January 11, 2008, the examiner rejected claims 5-7 under 35 U.S.C. §112, second paragraph, as being indefinite for the reasons stated in Section 1 of the office action. The examiner rejected claims 1, 2, 16-18, 21, 28, and 32 under 35 U.S.C. §102(b) as being anticipated by Silverman et al., U.S. Patent No. 4,709,265 ("Silverman"). The examiner rejected claims 3, 5-7, 14, 19, 20, 22-24, 33, 37-39, 42, 45, and 46 under 35 U.S.C. § 103(a) as being obvious over Silverman. The examiner rejected claims 4, 29-31, and 34 under Section 103(a) as being unpatentable over Silverman in view of Stuerzlinger, U.S. Patent No. 7,193,608 ("Stuerzlinger"). The examiner also rejected claims 8-13, 25-27, 35, 36, 40, 41, 43, and 44 under Section 103(a) as being obvious over Silverman in view of Ortiz et al., U.S. Patent No. 7,149,549 ("Ortiz"). The examiner rejected claim 15 under Section 103(a) as being obvious over Silverman in view of Dunsmore et al., U.S. Patent No. 5,389,998 (Dunsmore).

Re the Claims:

Claims 1, 23, 28, 29, 32, 38, and 42 are amended to further distinguish the claims over the prior art. Support for the amendments to the claims is found, either expressly or inherently, throughout the specification as originally filed and, more specifically, in paragraphs 35 and Figure 3. No new matter is added.

Claim 5 is amended to change its dependency from claim 1 to claim 3. The amendment to claim 5 addresses the Section 112 problem identified by the examiner.

Re the Section 102 Rejections:

The examiner rejected claims 1, 2, 16-18, 21, 28, and 32 under Section 102(b) as being anticipated by Silverman. These rejections are moot in light of the amendments to the claims. However, with respect to the currently-pending claims, amended claim 1 includes "a laser pointer mounted to said portable camera apparatus and aligned with said video camera to enable a user to confirm where the video camera is pointed and to enable a remote monitoring user to identify a frame of reference in an image captured by the video camera." As recognized by the examiner (e.g., on page 11, section 28 of the office action), this limitation is not shown by Silverman. Accordingly, Silverman cannot anticipate amended claim 1 or any of the claims that depend from claim 1, i.e., claims 2, 3, and 5-22.

Amended claim 28 includes "light source means . . . for directing a beam of light toward an object to be imaged by said camera means, the beam of light being incident on the object at a location that is within the field of view of said camera means." Silverman does not disclose this limitation. Consequently, Silverman cannot anticipate amended claim 28.

Amended claim 32 includes "illuminating an area on an object that is within a field of view of said portable video camera" and "aiming said portable video camera based on the illuminated area so that a desired portion of the object will be within the field of view of said portable video camera." Because Silverman does not disclose this limitation, Silverman cannot anticipate amended claim 32.

Legal Standard For Rejecting Claims
Under 35 U.S.C. §103

The examiner has the burden of establishing a prima facie case of obviousness. In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998). "If the examination at the initial stage does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of the patent." In re Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

The obviousness determination is controlled by four factors: 1) "the scope and content of the prior art"; 2) the "differences between the claims and the prior art"; 3) "the level of ordinary skill in the pertinent art"; and 4) "objective evidence of non-obviousness." KSR Int'l Co. v. Teleflex, Inc., 127 S. Ct. 1727, 1740-1741 (2007) (quoting Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18 (1966) (internal quotations omitted)). In considering the scope and content of the prior art, as well as the differences between the claims and the prior art, the fact finder must determine whether all of the claimed elements are present in the prior art, and if so, the fact finder must also determine "[w]hat the prior art teaches, whether it teaches away from the claimed invention, and whether it motivates a combination of teachings from different references." Dystar Textilfarben GmbH & Co. v. C.H. Patrick Co., 464 F.3d 1356, 1360 (Fed. Cir. 2006). A claim "composed of several elements is not proved obvious merely by demonstration that each of its elements was, independently, known in the prior art." KSR Int'l Co., 127 S. Ct. at 1741. See also Grain Processing Corp. v. Am. Maize Prods. Co., 840 F.2d 902, 907 (Fed. Cir. 1988): "In determining obviousness, the inquiry is not whether each element existed in the prior art, but whether the prior art made obvious the invention as whole for which patentability is claimed" (citation and internal quotations omitted). The analysis must "guard

against slipping into the use of hindsight" and "the temptation to read into the prior art the teachings of the invention at issue." Graham, 383 U.S. at 36.

The Federal Circuit has emphasized that it "is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." In re Fritch, 972 F.2d 1260, 1265 (Fed. Cir. 1992). As a check against hindsight analysis, the examiner must conduct an "explicit" analysis "to determine whether there was an apparent reason to combine the known elements in the fashioned claimed" KSR Int'l Co., 127 S. Ct. at 1741. As the Supreme Court made clear, "[R]ejections based on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" KSR Int'l Co., 127 S. Ct. at 1741 (quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Another consideration in the obviousness analysis is "whether the prior art would also have revealed that in so making or carrying out [the claimed composition or process], those of ordinary skill would have a reasonable expectation of success." In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991). See Takeda Chem. Indus., Ltd. v. Alphapharm Pty, Ltd., ___ F.3d ___, 2007 WL 1839698 (Fed. Cir. 2007).

Thus, proving obvious has three required components: 1) the presence or suggestion of all the claimed elements in the prior art; 2) a reasonable expectation of success from the modification or combination; and 3) an "explicit" analysis of "an apparent reason to combine known elements." MPEP 2143. See In re Vaeck, 947 F.2d at 493.

The fact that a reference "teaches away" from the claimed invention tends to indicate non-obviousness. KSR Int'l Co.,

1740. See McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1354 (Fed. Cir. 2001) ("[R]eferences that teach away cannot serve to create a prima facie case of obviousness"); In re Gurley, 27 F.3d 551, 553 (Fed. Cir. 1994) (citing cases). References "teach away" if they (1) discourage one of skill in the art from following the path laid out in the reference; (2) lead one of skill in the art in a direction different from that taken by the applicant; or (3) suggest that the line of development flowing from the reference's teaching will not achieve the results sought by the inventor. Tec Air, Inc. v. Denso Mfg. Mich. Inc., 192 F.3d 1353, 1360 (Fed. Cir. 1999). "Evidence that supports, rather than negates, patentability must be fairly considered." In re Dow Chem. Co., 837 F.2d 469, 473 (Fed. Cir. 1988).

Summary of Argument:

Generally speaking, each of the currently pending claims, as amended, requires a laser pointer or light source to be mounted to the portable camera so that it is generally aligned with a field of view of the camera. The light source may be used to illuminate a region on an object to ensure that a user holding the camera is aiming the camera at the desired location. The light source will also enable a remote monitoring user to identify a frame of reference in an image captured by the video camera.

While various elements of the pending claims may be found in the various references cited by the examiner, none of the references provide the "articulated reasoning with some rational underpinning" required to support the legal conclusion of obviousness under KSR, supra. Indeed, the only way a person having ordinary skill in the art would know which portions of the various references to combine would be to use the pending claims as a guide to search for the elements and limitations in the

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various references without regard to what the references actually teach. However, such an activity would amount to hindsight reconstruction which remains impermissible, even under the ruling in KSR, supra.

Re the Section 103 Rejections Based on Silverman:

The examiner rejected claims 3, 5-7, 14, 19, 20, 22-24, 33, 37-39, 42, 45, and 46 under 35 U.S.C. § 103(a) as being obvious over Silverman. These rejections are now moot in light of the amendments to the claims and will not be described in further detail herein.

Re the Rejections Based on Silverman and Stuerzlinger:

The examiner rejected claims 4, 29-31, and 34 under 35 U.S.C. § 103(a) as being obvious over Silverman in view of Stuerzlinger. In making these rejections, the examiner recognizes that the Silverman device "lacks the use of a laser flashing apparatus," and then states that Stuerzlinger "discloses the use of a laser flashing apparatus." The examiner then argues that it would be obvious to combine Silverman and Stuerzlinger "in order to provide a unique pattern that can be detected by the computer so that different users actions can be tracked separately, as suggested by Stuerzlinger.

The examiner's rejections are improper because his stated reason for combining the references is for a different purpose entirely (i.e., that of allowing a computer to track separate users). While this purpose is indeed the purpose for which Stuerzlinger uses his laser pointers, it is not the purpose of the present invention. Consequently, Stuerzlinger cannot possibly provide the required "rational underpinning" required by KSR, supra, in order to combine two references.

The present invention relates to a wireless, portable camera system that can be readily used in hazardous and other dangerous environments. The camera sends video signals to a remote monitoring station by way of radio signals. While the person at the remote monitoring station can view the image being captured by the portable camera, the person operating the camera cannot. In addition to the other stated elements and limitations, the present invention provides the camera system with a light source or laser pointer. The light source mounted to the portable camera and is aligned with the camera so that it will illuminate an area on an object that is within the field of view of the camera. Consequently, not only will the remote operator at the remote monitoring station be able to use the illuminated area to identify a frame of reference in the image captured by the video camera, but the camera operator (in the hazardous environment) will also be able to confirm that he is pointing the camera at the desired area of interest.

For example, suppose the camera operator is in a hazardous area containing piping and a number of valves, one of which must be turned off. The camera operator would activate the light source which will illuminate an area within the field of view of the camera. A remote operator (e.g., at the remote monitoring station) could view the image and determine, based on the illumination provided by the light source, that the camera operator needs to turn off the second valve on the right. The remote operator could then communicate with the camera operator (e.g., via radio) to move or aim the camera at the desired valve. The remote operator could then confirm (e.g., via the illuminated area which would appear on the display at the remote monitoring station) that the camera is pointed at the correct valve. The remote operator could then instruct the camera operator to turn

off the valve that is being illuminated by the light from the light source.

As recognized by the examiner, Silverman discloses a remote control mobile surveillance system that mounts stereoscopic video cameras on a remote controlled vehicle. The video images captured by the cameras are transmitted by radio to a remote operating station which then displays the video images. Because Silverman mounts the video cameras on a remote controlled vehicle, there is no need to provide the video camera with any type of light source to allow the camera to be aimed or to allow the remote user to identify a frame of reference. The remote user simply controls an articulated arm to point the cameras on the vehicle in the desired location.

The Stuerzlinger reference discloses collaborative pointing devices to allow several different participants to operate or interact with a computer based on the projected image of the computer display. More specifically, Stuerzlinger discloses a plurality of laser pointers that are independently operated or manipulated by the various participants to point at various features on the projected display. A video camera focused on the projected image detects the spots projected by the various laser pointers on the screen, and correlates them with an interactive computer pointer system (e.g., a mouse). The system thereby allows several participants to operate (e.g., via point and click) the computer controlling the projected image via the hand-held laser pointers.

As a first point, because Silverman relates to a remote control vehicle surveillance system and because Stuerzlinger specifically relates to collaborative pointing devices to allow several meeting participants to control a single computer display via hand-held laser pointers, there is no apparent reason to combine the various elements of Silverman and Stuerzlinger in the

manner required by the pending claims. That is, Silverman and Stuerzlinger cannot establish the required "articulated reasoning" with "some rational underpinning" that would lead to a conclusion of obviousness. Stated simply, a person having ordinary skill in the art and looking to solve the problems associated with providing camera systems and methodologies for use in hazardous environments, where the camera is to be operated by a person (as opposed to a robot) would not look to devices for allowing several meeting participants to control a projected computer display.

Given unrelated nature of the Silverman and Stuerzlinger references, the only way a person having ordinary skill in the art would know to combine Silverman and Stuerzlinger would be to use the pending claims as a guide to search through them to find the various elements without regard to what they would mean to a person having ordinary skill in the art. However, even under the holding of KSR, supra, such hindsight reconstruction is not an appropriate basis under which obviousness rejections can be made.

Stated somewhat differently, it is not sufficient to assert that claim 1 is obvious by merely demonstrating that each of its elements was known in the art. The inquiry is not whether each element exists in the prior art, but whether the prior art made obvious the invention as a whole at the time it was being developed by the inventor. It is not enough that Silverman discloses a remote-controlled vehicle having video cameras thereon and that Stuerzlinger discloses laser pointers. Instead, their teachings must be so directed so as to lead a person having ordinary skill in the art, and with no knowledge of the present invention, to combine the various elements in the manner required by the pending claims. That is the only way that the Patent Office can establish the required "articulated reasoning" with

"some rational underpinning" required to reach the legal conclusion of obviousness. Because no such articulated reasoning with some rational underpinning can be found in either Silverman or Stuerzlinger, neither reference can support an obviousness rejection under Section 103.

However, even if it were proper to combine Silverman and Stuerzlinger, which is denied, the resulting combination would still fail to meet the limitations of pending claim 1. For example, claim 1 requires that the portable camera apparatus include a laser flashing apparatus that is mounted to the portable camera and aligned with the camera so that the laser pointer illuminates an area on an object contained within a field of view of the camera. Neither Silverman or Stuerzlinger disclose or even suggest such limitations. As mentioned above, Silverman's camera is mounted to a remote-controlled robot. Accordingly, there is no need, thus no suggestion or incentive, to add any type of laser flashing apparatus to the camera, as the remote controlled vehicle cannot use the light to aim the camera at any desired location - that function is provided by the remote operator.

While Stuerzlinger discloses laser pointers that can be pointed at various regions within the field of view of the camera, Stuerzlinger does not mount his laser pointers on the camera. To the contrary, Stuerzlinger specifically desires his laser pointers to be hand-held by the meeting participants so that they can take over operation and control of the computer projecting the image on the screen, thereby saving the participants from having to share a mouse. In short, Stuerzlinger's teachings would have no applicability to the field of remote surveillance, which is another way of saying that Stuerzlinger is non-analogous art. At best, a combination of Silverman and Stuerzlinger would provide Silverman's remote

operator with a hand-held laser pointer. It certainly would not counsel mounting it to the camera, because Stuerzlinger requires that the pointers be hand-held so they can be moved around at will. Accordingly, because no combination of Silverman and Stuerzlinger would meet the limitations of amended claim 1, claim 1 cannot be obvious over Silverman and Stuerzlinger.

Dependent claims 2, 3, and 5-22 are at least allowable over Silverman and Stuerzlinger because they depend from claim 1, which is allowable over Silverman and Stuerzlinger.

Independent claim 23 is also allowable over Silverman and Stuerzlinger for the same reasons as those described above for claim 1. That is, the teachings of Silverman and Stuerzlinger are so unrelated that they cannot be said to provide required "articulated reasoning" with "some rational underpinning" that would lead to a conclusion of obviousness. Moreover, even if such an articulated reason and rational underpinning existed, the resulting combination would still fail to meet the limitations of amended claim 23 that requires the light source to be mounted on the portable camera. At best, the combination of Silverman and Stuerzlinger will result in providing the remote operator of Silverman with the hand-held laser pointer of Stuerzlinger. Therefore, claim 23 is not obvious over Silverman and Stuerzlinger.

Claims 24-27 are at least allowable over Silverman and Stuerzlinger because they depend from claim 23, which is allowable over Silverman and Stuerzlinger.

Independent claims 28 and 29 are allowable over Silverman and Stuerzlinger for the same reasons as those described above for claim 1. Specifically, the unrelated teachings of Silverman and Stuerzlinger cannot provide the "articulated reasoning" with "some rational underpinning" required for an obviousness rejection. In addition, even if such an articulated reason and

rational underpinning existed, the resulting combination would still fail to meet the limitations of amended claims 28 and 29 that requires the light source to be mounted on the portable camera. Consequently, claims 28 and 29 are not obvious over Silverman and Stuerzlinger.

Claims 30 and 31 are at least allowable over Silverman and Stuerzlinger because they depend from claim 29, which is allowable over Silverman and Stuerzlinger.

Independent method claims 32, 38, and 42 are allowable over Silverman and Stuerzlinger for reasons similar to those described above for claim 1. More specifically, each of claims 32, 38, and 42 require "illuminating an area on an object that is within a field of view" of the camera, then aiming the camera "based on the illuminated area" so that a desired portion of the object will be within the field of view of the camera. Silverman does not meet these limitations, because Silverman uses the remote operator, viewing the images at the remote station, to aim the camera (via remote control). Stuerzlinger does not use his hand held laser pointers to aim anything, much less a camera. Consequently, even if it were proper to combine Silverman and Stuerzlinger, which is denied, no combination of Silverman or Stuerzlinger would meet the limitations of amended claims 32, 38, and 42. Consequently, claims 32, 38, and 42 are not obvious over Silverman and Stuerzlinger.

Claims 33 and 35-37 are at least allowable over Silverman and Stuerzlinger because they depend from claim 32, which is allowable over Silverman and Stuerzlinger.

Claims 39-41 are at least allowable over Silverman and Stuerzlinger because they depend from claim 38, which is allowable over Silverman and Stuerzlinger.

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Claims 43-46 are at least allowable over Silverman and Stuerzlinger because they depend from claim 42, which is allowable over Silverman and Stuerzlinger.

Re the Rejections Based on Silverman and Ortiz:

The examiner also rejected claims 8-13, 25-27, 35, 36, 40, 41, 43, and 44 under Section 103(a) as being obvious over Silverman in view of Ortiz. These rejections are now moot in light of the amendments to the claims and will not be described in further detail herein.

Re the Rejections Based on Silverman and Dunsmore:

The examiner rejected claim 15 under Section 103(a) as being obvious over Silverman in view of Dunsmore. These rejections are now moot in light of the amendments to the claims and will not be described in further detail herein.

Applicant believes that all of the claims pending in this patent application are allowable and that all other issues raised by the examiner have been rectified. Therefore, applicant respectfully requests the examiner to reconsider the rejections and to grant an early allowance. If any questions or issues remain to be resolved, the examiner is requested to contact the applicant's attorney at the telephone number listed below.

Respectfully submitted,

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